

RITTERSHOFFEN

LA BOUCLE
EST BOUCLÉE



[et l'aventure continue !]

INAUGURATION

JUNE 7, 2016

PRESS RELEASE

ÉLECTRICITÉ DE STRASBOURG, ROQUETTE and the CAISSE DES DÉPÔTS inaugurate the first deep geothermal plant for industrial use

TUESDAY, JUNE 7, 2016, **Ségolène Royal**, the French Minister of the Environment, Energy and Marine Affairs, responsible for International Climate Relations, has inaugurated the Rittershoffen deep geothermal power plant. The plant was built by Électricité de Strasbourg, Roquette and the Caisse des Dépôts with the financial backing of the ADEME, represented by its Chairman, **Bruno Lêchevin**, and the Region, represented by **Philippe Richert**, President of the Regional Council of Alsace Champagne Ardenne Lorraine.

The Rittershoffen deep geothermal power plant is the first of its kind in the world, a model of energy transition and environmental strategy, which opens up important new possibilities for regional and national development. It is the first power plant to use steam from geothermal water to provide energy to an industrial site, in this case the Roquette Group in Beinheim. Water is brought up from a depth of 2500 m at a temperature of 165°C. The heat is then removed from the water, which is injected back to the same source. The energy is therefore 100% renewable, constant and fully energy-efficient.

This innovative, ambitious project is driven by 3 partners committed to the development of renewable energies:



ÉS is a leading local energy utility which, over the past 30 years, has been investing in the research and development of local renewable energies. ÉS gained its initial experience and expertise in geothermal energy through the Soultz-Sous-Forêts project, subsequent to which it made deep geothermal energy a major driver for developing its business with industry and local authorities and helping them in their energy transition process.



ROQUETTE, a worldwide family-owned group specialized in the processing of plant-based raw materials into products for the pharma, nutrition, food, and selected industry markets. The Group is committed to sustainable development and profitable growth serving its customers and consumers globally.

GR O U P E



LA CAISSE DES DÉPÔTS is a public group serving the public interest and the country's economic development. Its missions include supporting 4 strategic transitions for France's long-term growth. These comprise regional, ecological and energy, digital and demographic and social transitions.

The 3 partners have formed a joint venture for carrying through the project, with **40% held by ÉS, 40% by Roquette and 20% by the Caisse des Dépôts.**



PRESS CONTACTS

ÉS

MARTINE HOFF
martine.hoff@es.fr
+33 388 206 515

ROQUETTE

CAROLE PETITJEAN
carole.petitjean@roquette.com
+33 321 639 248

CAISSE DES DÉPÔTS

JOËLLE LAGRANGE
joelle.lagrange@caissedesdepots.fr
+33 388 524 536

Additional funding to reach the total of €55 million was provided by subventions and guarantees provided by 2 major public agencies:



ADEME, The French Environment and Energy Management Agency, a state-run organisation responsible for ecological transition, contributed **€25 million** to the project, through the Fonds Chaleur, a fund dedicated to financing local renewable-energy development projects. ADEME also provided guarantees of **€13 million** to cover against geological hazard, the risk of insufficient resources following drilling operations.



THE RÉGION GRAND EST was seeking to emphasise its support for the development of deep geothermal energy as a power source for the future for the region. It provided the remaining guarantees, amounting to **€2 million**, to cover against geological hazard.

Work on the site started in 2012 and comprised 3 major stages: drilling the first borehole, which confirmed the thermal potential, followed by the second borehole and then the construction of a 15 km loop for transporting the heat to the Roquette site in Beinheim. This was a large-scale project, run to the highest standards of quality and safety and encompassing every environmental and societal aspect, including archaeological digs along the length of the pipeline loop. The project was also an opportunity for local and national companies to showcase their expertise.

The plant is now operational and has shown the maturity of the environmentally-friendly Enhanced Geothermal System (EGS) technology developed by ÉS, which meets the 3 partners' requirements for sustainable and profitable growth:

- Annual output of **24 MWth**, or **190 000 MWh** of thermal energy, enough to heat some 27,000 homes. It allows Roquette Beinheim to reduce annual CO₂ emissions by 39,000 tonnes, the equivalent of the emissions of 25,000 cars over 12 months.
- Along with a fuelwood biomass boiler, and an installation for the production of biogas, it allows the site to cover **75%** of its steam needs with renewable energy sources.
- With non-intermittent geothermal energy available 8,000 hours per year, it provides Roquette Beinheim with a secure source of energy at a controlled cost.

The successful outcome of the project confirms deep geothermal energy's role in energy transition and as a growth driver for the sustainable development of the region. It also helps raise the region's profile, both domestically and internationally, through the emergence of a source of technical and scientific excellence supported by unique skills and expertise.

